

RAW SEQUENCE LISTING

The Biotechnology Systems Branch of the Scientific and Technical Information Center (STIC) no errors detected.

Application Serial Number: 09/638,693A
Source: IFW/6
Date Processed by STIC: 2/4/05

ENTERED



IFW16

RAW SEQUENCE LISTING
PATENT APPLICATION: US/09/638,693A

DATE: 02/04/2005
TIME: 16:30:31

Input Set : A:\PTO.FG.txt
Output Set: N:\CRF4\02042005\I638693A.raw

5 <110> APPLICANT: Innogenetics N.V.
9 <120> TITLE OF INVENTION: New sequences of hepatitis C virus genotypes for diagnosis, prophylaxis

10 and therapy

13 <130> FILE REFERENCE: 35

C--> 17 <140> CURRENT APPLICATION NUMBER: US/09/638,693A

C--> 17 <141> CURRENT FILING DATE: 2000-08-15

17 <160> NUMBER OF SEQ ID NOS: 284

21 <170> SOFTWARE: PatentIn version 3.1

25 <210> SEQ ID NO: 1

27 <211> LENGTH: 213

29 <212> TYPE: DNA

31 <213> ORGANISM: hepatitis C virus

35 <400> SEQUENCE: 1

36 ctcacggAAC ggctttactg cggggggccct atgttcaaca gcaagggggc ccagtgtgg 60

38 tATCGCCGCT gccgtgccAG tggagttctg cctaccAGct tcggcaacac aatcaCTTgc 120

40 tacatcaagg ccacagcggc tgcaaggggcc gcaggcctcc ggaacccgga ctttcttgc 180

42 tgccggagatg atctggtcgt ggtggctgag agt 213

P, 6

45 <210> SEQ ID NO: 2

47 <211> LENGTH: 71

49 <212> TYPE: PRT

51 <213> ORGANISM: hepatitis C virus

55 <400> SEQUENCE: 2

57 Leu Thr Glu Arg Leu Tyr Cys Gly Gly Pro Met Phe Asn Ser Lys Gly

58 1 5 10 15

61 Ala Gln Cys Gly Tyr Arg Arg Cys Arg Ala Ser Gly Val Leu Pro Thr

62 20 25 30

65 Ser Phe Gly Asn Thr Ile Thr Cys Tyr Ile Lys Ala Thr Ala Ala Ala

66 35 40 45

69 Arg Ala Ala Gly Leu Arg Asn Pro Asp Phe Leu Val Cys Gly Asp Asp

70 50 55 60

73 Leu Val Val Val Ala Glu Ser

74 65 70

77 <210> SEQ ID NO: 3

79 <211> LENGTH: 213

81 <212> TYPE: DNA

83 <213> ORGANISM: hepatitis C virus

87 <400> SEQUENCE: 3

88 ctcacggAAC ggctttactg cggggggccct atgttcaaca gcaagggggc ccagtgtgg 60

90 tATCGCCGCT gccgtgccAG tggagttctg cctaccAGct tcggcaacac aatcaCTTgc 120

92 tacatcaagg ccacagcggc tgcaaggggcc gcaggcctcc ggaacccgga ctttcttgc 180

94 tgccggagatg atctggtcgt ggtggctgag agt 213

97 <210> SEQ ID NO: 4

99 <211> LENGTH: 71

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101 <212> TYPE: PRT
103 <213> ORGANISM: hepatitis C virus
107 <400> SEQUENCE: 4
109 Leu Thr Glu Arg Leu Tyr Cys Gly Gly Pro Met Phe Asn Ser Lys Gly
110 1 5 10 15
113 Ala Gln Cys Gly Tyr Arg Arg Cys Arg Ala Ser Gly Val Leu Pro Thr
114 20 25 30
117 Ser Phe Gly Asn Thr Ile Thr Cys Tyr Ile Lys Ala Thr Ala Ala Ala
118 35 40 45
121 Lys Ala Ala Gly Leu Arg Asn Pro Asp Phe Leu Val Cys Gly Asp Asp
122 50 55 60
125 Leu Val Val Val Ala Glu Ser
126 65 70
129 <210> SEQ ID NO: 5
131 <211> LENGTH: 213
133 <212> TYPE: DNA
135 <213> ORGANISM: hepatitis C virus
139 <400> SEQUENCE: 5
140 ctcacggagc ggctttactg cggggggccct atgtttaaca gcaagggggc ccagtgtgg 60
142 tatcgccgtt gccgtgccag tggagttctg cctaccagct tcggcaacac aatcacttgt 120
144 tacatcaaag ccacagcggc cgcaaaagcc gcaggcctcc ggagcccgga ctttcttgc 180
146 tgcggagatg atctggtcgt ggtggctgag agt 213
149 <210> SEQ ID NO: 6
151 <211> LENGTH: 71
153 <212> TYPE: PRT
155 <213> ORGANISM: hepatitis C virus
159 <400> SEQUENCE: 6
161 Leu Thr Glu Arg Leu Tyr Cys Gly Gly Pro Met Phe Asn Ser Lys Gly
162 1 5 10 15
165 Ala Gln Cys Gly Tyr Arg Arg Cys Arg Ala Ser Gly Val Leu Pro Thr
166 20 25 30
169 Ser Phe Gly Asn Thr Ile Thr Cys Tyr Ile Lys Ala Thr Ala Ala Ala
170 35 40 45
173 Lys Ala Ala Gly Leu Arg Ser Pro Asp Phe Leu Val Cys Gly Asp Asp
174 50 55 60
177 Leu Val Val Val Ala Glu Ser
178 65 70
181 <210> SEQ ID NO: 7
183 <211> LENGTH: 213
185 <212> TYPE: DNA
187 <213> ORGANISM: hepatitis C virus
191 <400> SEQUENCE: 7
192 ctcacggagc ggctttactg cggggggccct atgtttaaca gcaaaggggc ccagtgtgg 60
194 tatcgccgtt gccgtgccag tggagttctg cctaccagct tcggcaacac aatcacttgt 120
196 tacatcaaag ccacagcggc cgcaaaagcc gcaggcctcc ggagcccgga ctttcttgc 180
198 tgcggagatg atctggtcgt ggtggctgag agt 213
201 <210> SEQ ID NO: 8
203 <211> LENGTH: 71
205 <212> TYPE: PRT

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Input Set : A:\PTO.FG.txt
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207 <213> ORGANISM: hepatitis C virus
 211 <400> SEQUENCE: 8
 213 Leu Thr Glu Arg Leu Tyr Cys Gly Gly Pro Met Phe Asn Ser Lys Gly
 214 1 5 10 15
 217 Ala Gln Cys Gly Tyr Arg Arg Cys Arg Ala Ser Gly Val Leu Pro Thr
 218 20 25 30
 221 Ser Phe Gly Asn Thr Ile Thr Cys Tyr Ile Lys Ala Thr Ala Ala Ala
 222 35 40 45
 225 Lys Ala Ala Gly Leu Arg Ser Pro Asp Phe Leu Val Cys Gly Asp Asp
 226 50 55 60
 229 Leu Val Val Val Ala Glu Ser
 230 65 70
 233 <210> SEQ ID NO: 9
 235 <211> LENGTH: 213
 237 <212> TYPE: DNA
 239 <213> ORGANISM: hepatitis C virus
 243 <400> SEQUENCE: 9
 244 ctcacggagc ggctttaactg cggggggcct atgttcaaca gcaagggggc ccagtgtgg 60
 246 tatcgccgtt gtcgtgccag tggagttctg cctaccagtt tcggcaacac aatcaattgt 120
 248 tacatcaagg ccacagcggc tgcaaaaagcc gcaggcctcc ggaacccgga ctttcttgg 180
 250 tgcggagatg atttggtcgt ggtggctgag agt 213
 253 <210> SEQ ID NO: 10
 255 <211> LENGTH: 71
 257 <212> TYPE: PRT
 259 <213> ORGANISM: hepatitis C virus
 263 <400> SEQUENCE: 10
 265 Leu Thr Glu Arg Leu Tyr Cys Gly Gly Pro Met Phe Asn Ser Lys Gly
 266 1 5 10 15
 269 Ala Gln Cys Gly Tyr Arg Arg Cys Arg Ala Ser Gly Val Leu Pro Thr
 270 20 25 30
 273 Ser Phe Gly Asn Thr Ile Thr Cys Tyr Ile Lys Ala Thr Ala Ala Ala
 274 35 40 45
 277 Lys Ala Ala Gly Leu Arg Asn Pro Asp Phe Leu Val Cys Gly Asp Asp
 278 50 55 60
 281 Leu Val Val Val Ala Glu Ser
 282 65 70
 285 <210> SEQ ID NO: 11
 287 <211> LENGTH: 213
 289 <212> TYPE: DNA
 291 <213> ORGANISM: hepatitis C virus
 295 <400> SEQUENCE: 11
 296 ctcacggagc ggctttaactg cggggggcct atgttcaaca gcaagggggc ccagtgtgg 60
 298 tatcgccgtt gtcgtgccag tggagttctg cctaccagtt tcggcaacac aatcaattgt 120
 300 tacatcaagg ccacagcggc tgcaaaaagcc gcaggcctcc ggaacccgga ctttcttgg 180
 302 tgcggagatg atttggtcgt ggtggctgag agt 213
 305 <210> SEQ ID NO: 12
 307 <211> LENGTH: 71
 309 <212> TYPE: PRT
 311 <213> ORGANISM: hepatitis C virus

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Input Set : A:\PTO.FG.txt
Output Set: N:\CRF4\02042005\I638693A.raw

315 <400> SEQUENCE: 12
 317 Leu Thr Glu Arg Leu Tyr Cys Gly Gly Pro Met Phe Asn Ser Lys Gly
 318 1 5 10 15
 321 Ala Gln Cys Gly Tyr Arg Arg Cys Arg Ala Ser Gly Val Leu Pro Thr
 322 20 25 30
 325 Ser Phe Gly Asn Thr Ile Thr Cys Tyr Ile Lys Ala Thr Ala Ala Ala
 326 35 40 45
 329 Lys Ala Ala Gly Leu Arg Asn Pro Asp Phe Leu Val Cys Gly Asp Asp
 330 50 55 60
 333 Leu Val Val Val Ala Glu Ser
 334 65 70
 337 <210> SEQ ID NO: 13
 339 <211> LENGTH: 541
 341 <212> TYPE: DNA
 343 <213> ORGANISM: hepatitis C virus
 347 <400> SEQUENCE: 13
 348 cgtcggcgct cctgttaggag gcgtcgcaag agcccttgcg catggcgtga gggcccttga 60
 350 agacgggata aatttcgcaa cagggattt gccccgttgc tccttttcta tcttccttct 120
 352 tgctctgttc tcttgcttaa tccatccagc agctagtcta gagtggccga acacgtctgg 180
 354 cctctatgtc cttaccaacg actgttccaa tagcagtatt gtgtatgagg ccgatgacgt 240
 356 tattctgcac acaccggct gtgtaccttg tgttcaggac ggttaatacat ctgcgtgctg 300
 358 gaccccagtg acacccatcag tggcagtcag gtacgtcgga gcaaccacccg cttcgatac 360
 360 caggcatgt aacatgttgg tggggcgcggc cacgatgtgc tctgctctct acgtgggtga 420
 362 tatgtgtggg gccgtcttcc tcgtgggaca agccttcacg ttcaagaccc gtcgccatca 480
 364 aacggtccag acctgttaact gtcactgtc cccaggccat ctttcaggac accgaatggc 540
 366 t
 369 <210> SEQ ID NO: 14
 371 <211> LENGTH: 180
 373 <212> TYPE: PRT
 375 <213> ORGANISM: hepatitis C virus
 379 <400> SEQUENCE: 14
 381 Val Gly Ala Pro Val Gly Gly Val Ala Arg Ala Leu Ala His Gly Val
 382 1 5 10 15
 385 Arg Ala Leu Glu Asp Gly Ile Asn Phe Ala Thr Gly Asn Leu Pro Gly
 386 20 25 30
 389 Cys Ser Phe Ser Ile Phe Leu Leu Ala Leu Phe Ser Cys Leu Ile His
 390 35 40 45
 393 Pro Ala Ala Ser Leu Glu Trp Arg Asn Thr Ser Gly Leu Tyr Val Leu
 394 50 55 60
 397 Thr Asn Asp Cys Ser Asn Ser Ser Ile Val Tyr Glu Ala Asp Asp Val
 398 65 70 75 80
 401 Ile Leu His Thr Pro Gly Cys Val Pro Cys Val Gln Asp Gly Asn Thr
 402 85 90 95
 405 Ser Ala Cys Trp Thr Pro Val Thr Pro Thr Val Ala Val Arg Tyr Val
 406 100 105 110
 409 Gly Ala Thr Thr Ala Ser Ile Arg Arg His Val Asp Met Leu Val Gly
 410 115 120 125
 413 Ala Ala Thr Met Cys Ser Ala Leu Tyr Val Gly Asp Met Cys Gly Ala
 414 130 135 140

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417 Val Phe Leu Val Gly Gln Ala Phe Thr Phe Arg Pro Arg Arg His Gln
 418 145 150 155 160
 421 Thr Val Gln Thr Cys Asn Cys Ser Leu Tyr Pro Gly His Leu Ser Gly
 422 165 170 175
 425 His Arg Met Ala
 426 180
 429 <210> SEQ ID NO: 15
 431 <211> LENGTH: 541
 433 <212> TYPE: DNA
 435 <213> ORGANISM: hepatitis C virus
 439 <400> SEQUENCE: 15
 440 cgtcgccgt cctgttaggag gcgtcgcaag agcccttgcg catggcgtga gggcccttga 60
 442 agacgggata aatttcgcaa cagggattt gcccgttgc tcctttctta tcttccttcc 120
 444 tgctctgttc tcttgcttaa tccatccagc agctagtcta gagtggcggg acacgtctgg 180
 446 cctctatgtc cttaccaacg actgttccaa tagcagtatt gtgtatgagg ccgatgacgt 240
 448 tattctgcac acacccggct gtgtaccttgc tgttcaggac ggttaatacat ctgcgtgctg 300
 450 gaccccgatg acacccatag tggcagtcag gtacgtcggg gcaaccaccg cttcgatacg 360
 452 caggcatgta gacatattgg tgggcgcggc cacaatgtgc tctgctct acgtgggtga 420
 454 tatgtgtggg gccgtttcc tcgtgggaca agccttcacg ttccagaccc gtcgccatca 480
 456 aacggtccag acctgtaact gctcactgta cccaggccat ctttcaggac accgaatggc 540
 458 t 541
 461 <210> SEQ ID NO: 16
 463 <211> LENGTH: 180
 465 <212> TYPE: PRT
 467 <213> ORGANISM: hepatitis C virus
 471 <400> SEQUENCE: 16
 473 Val Gly Ala Pro Val Gly Gly Val Ala Arg Ala Leu Ala His Gly Val
 474 1 5 10 15
 477 Arg Ala Leu Glu Asp Gly Ile Asn Phe Ala Thr Gly Asn Leu Pro Gly
 478 20 25 30
 481 Cys Ser Phe Ser Ile Phe Leu Pro Ala Leu Phe Ser Cys Leu Ile His
 482 35 40 45
 485 Pro Ala Ala Ser Leu Glu Trp Arg Asn Thr Ser Gly Leu Tyr Val Leu
 486 50 55 60
 489 Thr Asn Asp Cys Ser Asn Ser Ser Ile Val Tyr Glu Ala Asp Asp Val
 490 65 70 75 80
 493 Ile Leu His Thr Pro Gly Cys Val Pro Cys Val Gln Asp Gly Asn Thr
 494 85 90 95
 497 Ser Ala Cys Trp Thr Pro Val Thr Pro Thr Val Ala Val Arg Tyr Val
 498 100 105 110
 501 Gly Ala Thr Thr Ala Ser Ile Arg Arg His Val Asp Ile Leu Val Gly
 502 115 120 125
 505 Ala Ala Thr Met Cys Ser Ala Leu Tyr Val Gly Asp Met Cys Gly Ala
 506 130 135 140
 509 Val Phe Leu Val Gly Gln Ala Phe Thr Phe Arg Pro Arg Arg His Gln
 510 145 150 155 160
 513 Thr Val Gln Thr Cys Asn Cys Ser Leu Tyr Pro Gly His Leu Ser Gly
 514 165 170 175
 517 His Arg Met Ala

RAW SEQUENCE LISTING ERROR SUMMARY DATE: 02/04/2005
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Please Note:

Use of n and/or Xaa have been detected in the Sequence Listing. Please review the Sequence Listing to ensure that a corresponding explanation is presented in the <220> to <223> fields of each sequence which presents at least one n or Xaa.

Seq#:55; N Pos. 191
Seq#:56; Xaa Pos. 64
Seq#:57; N Pos. 185,191,276
Seq#:58; Xaa Pos. 62,64,92
Seq#:59; N Pos. 38,76,79,151,232,349
Seq#:60; Xaa Pos. 13,26,27,51,78,117
Seq#:61; N Pos. 38,70,174,339
Seq#:62; Xaa Pos. 13,24,58,113
Seq#:165; N Pos. 306,313,340
Seq#:166; Xaa Pos. 102,105,114
Seq#:179; N Pos. 568,569,570,571,572,573,574,575,576,577,578,579
Seq#:180; Xaa Pos. 24,190,191,192,193
Seq#:181; N Pos. 152
Seq#:182; Xaa Pos. 51
Seq#:197; N Pos. 787,1011,1444
Seq#:198; Xaa Pos. 263,337,482
Seq#:199; N Pos. 684,909,1058,1133
Seq#:200; Xaa Pos. 228,303,353,378
Seq#:209; N Pos. 13,23,65,72,277,337
Seq#:210; Xaa Pos. 8,22,24
Seq#:211; N Pos. 11,327,333,334,340
Seq#:212; Xaa Pos. 4,109,111

Invalid <213> Response:

Use of "Artificial" only as "<213> Organism" response is incomplete, per 1.823(b) of New Sequence Rules. Valid response is Artificial Sequence.

Seq#:63,64,65,66,67,68,69,70,71,72,73,74,75,76,77,78,79,80,81,82,124,125,141
Seq#:142

VERIFICATION SUMMARY

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L:17 M:270 C: Current Application Number differs, Replaced Current Application No
L:17 M:271 C: Current Filing Date differs, Replaced Current Filing Date
L:2300 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:55 after pos.:180
L:2341 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:56 after pos.:48
L:2408 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:57 after pos.:180
M:341 Repeated in SeqNo=57
L:2469 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:58 after pos.:48
M:341 Repeated in SeqNo=58
L:2564 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:59 after pos.:0
M:341 Repeated in SeqNo=59
L:2639 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:60 after pos.:0
M:341 Repeated in SeqNo=60
L:2722 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:61 after pos.:0
M:341 Repeated in SeqNo=61
L:2787 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:62 after pos.:0
M:341 Repeated in SeqNo=62
L:5642 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:165 after pos.:300
L:5717 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:166 after pos.:96
M:341 Repeated in SeqNo=166
L:6340 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:179 after pos.:540
L:6379 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:180 after pos.:16
M:341 Repeated in SeqNo=180
L:6452 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:181 after pos.:120
L:6503 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:182 after pos.:48
L:7234 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:197 after pos.:780
M:341 Repeated in SeqNo=197
L:7365 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:198 after pos.:256
M:341 Repeated in SeqNo=198
L:7498 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:199 after pos.:660
M:341 Repeated in SeqNo=199
L:7635 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:200 after pos.:224
M:341 Repeated in SeqNo=200
L:8046 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:209 after pos.:0
M:341 Repeated in SeqNo=209
L:8101 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:210 after pos.:0
M:341 Repeated in SeqNo=210
L:8184 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:211 after pos.:0
M:341 Repeated in SeqNo=211
L:8239 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:212 after pos.:0
M:341 Repeated in SeqNo=212